

REMARKS/ARGUMENTS

Initially, Applicants would like to express appreciation to the Examiner for the detailed Official Action provided.

Claims 1-6 are currently pending. Applicants respectfully request reconsideration of the outstanding rejection, and allowance of all the claims pending in the present application.

In the Official Action, the Examiner rejected claims 1-6 as being unpatentable over OJIMA et al (U.S. Patent No. 5,147,361) in view of SCHARF (U.S. Patent No. 6,682,563) and GAINES (U.S. Patent Application Pub. No. 2002/0068940).

Applicants respectfully traverse the Examiner's above-noted rejection.

In this regard, Applicants submit that OJIMA, SCHARF, and GAINES, alone or in any properly reasoned combination, lack any disclosure of the combination of elements recited in claims 1 and 6.

In particular, claims 1 and 6 both generally set forth a vertebra body plate including, inter alia, a plurality of spikes extending continuously from and connected directly to the main body portion, at least one of the plurality of spikes being provided on or near at least one of the first and second diagonal lines, wherein generally straight lines connecting adjacent spikes define a rhombic shape, and the plurality of screw insertion holes are provided within the rhombic shape.

Applicants submit that OJIMA, SCHARF, and GAINES, alone or in any properly reasoned combination, lack any disclosure of at least the above-noted combination of elements.

In setting forth the rejection, the Examiner relies on OJIMA as purportedly disclosing the general structure of a vertebra body plate (10). Further, the Examiner acknowledges that OJIMA does not disclose the main body portion having a rhombic shape.

Nevertheless, the Examiner asserts that it would have been obvious to supply the deficiencies of OJIMA with the purported teachings of SCHARF (i.e., the Examiner asserts that SCHARF discloses a rhombic shaped main body). Additionally, the Examiner asserts that GAINES teaches spikes 42 located at an outer edge of the plate (see, Figure 5 of GAINES).

However, contrary to the Examiner's assertions, the devices of OJIMA, SCHARF and GAINES are each structurally very different from the presently claimed vertebra body plate.

More specifically, Applicants submit that the lines connecting the sharp apexes 13 (which the Examiner considers to be the presently claimed spikes) in OJIMA define a generally truncated trapezoidal shape. That is, Applicants submit that if each sharp apex 13 of OJIMA were to be connected to an adjacent apex 13 by a generally straight line, a truncated trapezoidal shape would be defined.

In this regard, the Examiner's attention is directed to Figures 1D and 1B which show that the positions of the spikes 13 generally correspond to the location of the threaded holes 14 and 15. Further, the plan view shown in Figure 1A clearly illustrates that a first straight line connecting threaded holes 15, a second straight line connecting threaded holes 14, and third and fourth straight lines connecting threaded holes 14 and 15 of each bulbous end portion, define a shape having a generally truncated trapezoidal geometry.

Thus, because the spikes 13 are positioned at locations generally corresponding to the locations of the threaded holes, the generally straight lines connecting adjacent spikes 13 consequently define a generally truncated trapezoidal shape.

Further, Applicants submit that if adjacent spikes 25 of the device disclosed in SCHARF were connected by straight lines, a generally rectangular shape would be defined. Additionally,

the apertures 31 and 35 would be positioned outside of the generally rectangular shape (see, Figures 1 and 3).

Additionally, Applicants submit that the disclosure of GAINES does not supply the above-mentioned deficiencies of OJIMA and SCHARF because the spikes 42 of GAINES are positioned to define a generally square shape (see, Figure 5 of GAINES).

Thus, even assuming, arguendo, that the teachings of OJIMA, SCHARF and GAINES were properly combined, the applied prior art still does not disclose at least the presently claimed generally straight lines connecting adjacent spikes defining a rhombic shape, and the plurality of screw insertion holes being provided within the rhombic shape, substantially as recited in independent claims 1 and 6.

In this regard, Applicants submit that at least one advantage of the presently claimed vertebra body plate is that the positioning of the spikes (i.e., so as to define a rhombic shape) and the location of the screw insertion holes allow the presently claimed vertebra body plate to provide improved secure fixation to a vertebra body (see, e.g., Page 7, lines 14 and 15, of the present Specification).

Accordingly, Applicants submit that the rejection of claims 1-6 under 35 U.S.C. § 103(a) is improper and should be withdrawn.

Further, Applicants also expressly incorporates all other arguments made in Applicants' previous Responses.

In view of the herein-contained remarks, Applicants submit that independent claim 1 and 6 are in condition for allowance. With regard to dependent claims 2-5, Applicants assert that they are allowable on their own merit, as well as because of their dependency from independent claim 1 which Applicants have shown to be allowable.

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Thus, it is respectfully submitted that all of the claims in the present application are clearly patentable over the references cited by the Examiner, either alone or in combination, and an indication to such effect is respectfully requested, in due course.

SUMMARY

Applicants submit that the present application is in condition for allowance, and respectfully request an indication to that effect. Applicants have argued the allowability of the claims and pointed out deficiencies of the applied references. Accordingly, reconsideration of the outstanding Official Action and allowance of the present application and all the claims therein are respectfully requested and is now believed to be appropriate.

Should the Examiner have any questions, the Examiner is invited to contact the undersigned at the below-listed telephone number.

Respectfully submitted,  
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